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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/673,402 | 09/30/2003 | Kiu-Hae Jung | 1293.1861 | 3744 |
| 49455 7590 01/19/2007 STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005 | | | EXAMINER PSITOS, ARISTOTELIS M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2627 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/673,402

Applicant(s)

JUNG ET AL.

Examiner

Aristotelis M. Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 23-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 23-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicants' response of 10/16/06 has been considered with the following results.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the code limitations/constraints as further defined by claims 4,7,8,11,15,18,19,22,30 and 31 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments

Applicant's arguments filed 10/16/06 have been fully considered but they are not persuasive.

As previously indicated, the limitations of claims 4,7,8,11,30 and 31 ARE NOT DEPICTED in any of the figures. The claimed limitations CANNOT be seen in these figures; hence the drawing objections are maintained.

Claim Objections

Claims 2-23-28,30 and 31 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

In particular:

- a) With respect to claims 2-11 these claims add no further structural limitations to the storage medium – i.e., no further product limitations.
- b) With respect to claim 12, the term "preparing" in line 4 of the claim is not understood. The examiner cannot map this term with the remainder of the disclosure in order to understand its intended meaning. Further elaboration is respectfully required.
- c) With respect to claims 13-22, these claims fail to add any further method limitations.
- d) With respect to claims 16,17, and 21, the examiner cannot readily find support/discussion with respect to the "integer" multiple requirements, further elaboration is respectfully requested.
- e) Claim 20 is a duplicate of claim 14.
- f) Claim 21 is a duplicate of claim 17.
- g) With respect to claim 23 – this is a duplicate of claim 1.
- h) Claims 24-26 add no further product limitations.
- i) Claims 28, 30 and 31 add no further apparatus limitations.
- j) Claim 29 – the transferring of the "transfers" - transferring of the user data is not clear. Further elaboration is respectfully requested.

Response to Arguments

Applicant's arguments filed 10/16/06 have been fully considered but they are not persuasive.

With respect to claims 2-11: these claims relate to the information and NOT to the record medium structure. Hence they fail to further limit their parent claim.

With respect to claim 23: the claim is a substantial duplicate of claim 1. NO patentable distinction is seen between this claim and claim 1.

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With respect to claims 24-26: these claims DO NOT further limit the parent product claim. They attempt to define the format of the signal itself, and not the product.

With respect to claims 28,30 and 31: these claims DO not further limit any "means" as required – i.e., not written in means plus function language.

With respect to claim 29: the objection is maintained. The term "transfer" and its use in this claim is not clear – either from the disclosure or the claim language itself. What is a transfer of user data to another user data area?

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-11 and 23-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims are attempting to define non-descriptive functional subject matter, however, they fail to satisfy the requirements of 35 U.S.C. 101 – see MPEP section 2106 under the section (1) – Non-statutory subject matter. In this analysis, the wherein clause of claim (s) 1 and 23 are interpreted as the non-descriptive functional subject matter. The remaining dependent claims fail to make these claims statutory and hence fall accordingly.

As far as the claims are interpreted the following art rejections are made.

Response to Arguments

Applicant's arguments filed 10/16/06 have been fully considered but they are not persuasive.

Applicants' claims are not drawn to the argued "computer readable medium".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 27-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Roth et al.

Roth et al system discloses a digital transmission method. This method is used in the field of recording data – see col. 4, lines 3-16. Also see the disclosure starting at col 3 line 1 – till line 30 in col.4. The Roth et al system provides for the placement of appropriate sync signals interleaved between data areas. There is a plethora of additional data areas – see the discussion with respect to figure 4. The first and second sync patterns are believed to be self-evident. And plural patterns disclosed.

With respect to apparatus claim 27 – such elements, i.e., a recording/reproducing unit is inherently present – i.e., since the overall invention is for recording digital data, obviously a recording unit must be present.

With respect to the controller – such is performed by the CPU element following the overall process/method limitations disclosed.

With respect to claim 28 – first and second locations for the sync signals/patterns are so defined.

With respect to claim 29, data is appropriated transferred – located in data areas as required.

With respect to claims 30 and 31, the d,k constraints are present.

Response to Arguments

Applicant's arguments filed 10/16/06 have been fully considered but they are not persuasive.

With respect to the argument that Roth discloses no method of recording that includes a user data area, an additional data area before or after the user data area having second sync patterns different from the first sync patterns in the user data areas.

The examiner respectfully disagrees.

Roth is drawn to an encoding/decoding system for digital data. Furthermore, the Roth disclosure is replete with references to recording – i.e., writing – see for instance see col. 4 starting at line 36 till line 68, col. 8 lines 45-46 – to wit; A METHOD FOR MAKING A LOWER RESOLUTION RECORDING SYSTEM.

What if not recording does this language refer to?

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Furthermore, Roth does disclose recording/reproducing – see for instance col. 1 lines 14-30.

User data areas inherently exist between the sync patterns.

The sync patterns are indeed different – see again col. 4 starting at line 3.

Conclusion

Although the examiner has interpreted claims 1-11 and 23-26 as being non-statutory, if applicants' can re-cast their claims so as to become statutory, then the examiner would also rely upon the above document to Kojima et al with well known record mediums in order to render these claims unpatentable under 103. The motivation is to actually provide a record medium having such sync patterns with their appropriate d,k constraints as discussed in the reference.

Applicant's attention is further drawn to the following additional cited references:

Kori et al – wherein – odd and even sync patterns are present interleaved with the video data – since a record medium is present, appropriate data areas, sync areas, etc are also present.

Ichikawa et al – note in particular the disclosure commencing at col 13, line 50 with respect to figure 19. Appropriate code words SY – SY7 and the provision of the parity information – such is part of the sync pattern.

Watanabe – ('156), see the discussion with respect to the sync patterns starting at col. 7 line 11 with respect to figure 11. These sync patterns vary.

Kojima et al – see the discussion with respect to the different sync patterns – SY0 – SY7 – depicting data fields/areas in between, etc.

The above documents can be relied upon in place of the Roth et al reference to render the method and apparatus claims unpatentable -

Applicant's attention is also drawn to the Immink article – the EFM Plus coding capability, especially section d – SYNC PATTERN starting on page 495.

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos
Primary Examiner
Art Unit 2627



AMP